

**UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

KAIST IP US LLC,

Plaintiff and Counterclaim-Defendant,

v.

SAMSUNG ELECTRONICS CO., LTD.;
SAMSUNG ELECTRONICS AMERICA, INC.;
SAMSUNG SEMICONDUCTOR, INC.;
SAMSUNG AUSTIN SEMICONDUCTOR, LLC;
GLOBALFOUNDRIES INC.;
GLOBALFOUNDRIES U.S. INC.; and
QUALCOMM INC.,

Defendants and Counterclaim-Plaintiffs.

Case No.: 2:16-cv-01314-JRG-RSP

JURY TRIAL DEMANDED

Honorable Rodney Gilstrap

FILED UNDER SEAL

**REPLY BY KAIST IP US IN SUPPORT OF MOTION FOR SUMMARY JUDGMENT
OF INFRINGEMENT AGAINST THE SAMSUNG DEFENDANTS**

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I. INTRODUCTION

Samsung has it backwards as to the law, and has it wrong as to infringement. Samsung raises new and unsupported non-infringement theories, particularly based on previously undisclosed claim constructions that seek to nullify the Court’s claim construction order; impose “limitations” by importing elements from one claim into another; and re-argue issues already decided against it. Strangely, Samsung urges that KAIST IP US should have sought claim constructions. But Samsung – not KAIST IP US – is the party seeking to narrow the otherwise plain meaning of the claims. Therefore, Samsung cannot escape the burden to justify its new claim constructions. *See Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 989 (Fed. Cir. 1999). These tactics fail to show the existence of any genuine issue of material fact.

II. SAMSUNG HAS FAILED TO SHOW A GENUINE DISPUTE

A. As To Whether Its Fin Active Regions Are “Wall-Shape.”

The parties agree the shape of Samsung’s fins are as depicted in [REDACTED]. Nonetheless, Samsung tries to manufacture a dispute by [REDACTED]. Samsung urges the “plain meaning” of wall-shape supports its narrow view of that term. But neither Samsung nor its expert explain what this meaning is, or why it would exclude [REDACTED]. This is a new and undisclosed claim construction contention that should be rejected.

The plain and ordinary meaning of wall-shape does not exclude any particular shape. Walls may have different shapes – some with curved sides, some without. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Samsung's argument of plain and ordinary meaning is thus a *sub-silentio* attempt to limit the claims without a disclaimer or an express definition. But this is improper. As the Federal Circuit declared in *Hill-Rom Servs., Inc. v. Stryker Corp.*, 755 F.3d 1367 (Fed. Cir. 2014), "we depart from the plain and ordinary meaning of claim terms based on the specification in only two instances: lexicography and disavowal." *Id.* at 1371. Neither exists here. Indeed, Samsung adduces no intrinsic evidence that would limit wall-shape to exclude its fin active regions.

Samsung relies on its expert's opinion of wall-shape to create a triable issue. But in the summary judgment context, the Fifth and Federal Circuits have demanded that opinions be based on reasoning and factual support. *Stagliano v. Cincinnati Ins. Co.*, 633 Fed. Appx. 217, 220 n.2 (5th Cir. 2015); *Invitrogen Corp. v. Clontech Labs., Inc.*, 429 F.3d 1052, 1081 (Fed. Cir. 2005). "A party does not manufacture more than a merely colorable dispute simply by submitting an expert declaration asserting that something is black when the moving party's expert says it is white; there must be some foundation or basis for the opinion." *Invitrogen*, 429 F.3d at 1080.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]. *Invitrogen*, 429 F.3d at 1081.

Samsung urges that any reading of wall-shape other than Dr. Subramanian's is wrong. But this argument is conclusory and supported only by a footnote stating [REDACTED] [REDACTED] Dkt. 300, Opp. at 4 n.1. In this sense, Samsung attempts to limit the claims to the embodiments. The Federal Circuit has rejected attempts to read embodiments into the claims. *Hill-Rom*, 755 F.3d at 1371 (“[W]e do not read limitations from the embodiments in the specification into the claims.”).

B. As To the First and Gate Oxide Layer Limitations.

1. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]. This is just another attempt to limit the claims without an express definition or disclaimer, in contravention of Federal Circuit law. *See Hill-Rom*, 755 F.3d at 1371. This is another new and undisclosed claim construction contention that should be rejected.

[REDACTED]

[REDACTED] But Samsung's interpretation finds no support in the patent. Rather, it is contradicted by both the claims and the specification. As this Court found, claim 15 teaches that the fin active regions can be beveled and rounded at

the top. *See* Dkt. 179, Claim Construction Order at 23-24. Given this express construction by the Court, [REDACTED]

[REDACTED]

Not only does Samsung's argument contravene the Court's construction, it would therefore exclude the chamfered embodiment of dependent claim 15. This Court in *Pioneer Corp v. Samsung SDI Co., Ltd.*, 2007 WL 5688764 (E.D. Tex. Dec. 27, 2007) (Folsom, J.), held it improper to read an independent claim to exclude its dependent claims' inventions, as Samsung does here. *Id.* at *16. As such, [REDACTED].

2. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

3. The Intrinsic Evidence Does Not Require That the First and Gate Oxide Layer Limitations Be Met By Different Structures.

[REDACTED]

[REDACTED] This is another new and undisclosed claim construction contention that should be rejected. It is also wrong as a matter of law. Federal Circuit precedent requires that “first oxide layer” and “gate oxide layer” have different meanings, not that they refer to different structures. *See* Dkt. 228, Mot. at 16 (and authorities cited). Unless so construed (and the Court has not), a single structure may satisfy these elements. *See id.*

The '055 Patent never restricts these terms to require they be met only by separate structures, and Samsung cites no intrinsic evidence to show that it does. That alone is sufficient to reject Samsung's new claim construction. *See Hill-Rom*, 755 F.3d at 1371. But further, Samsung's position is contradicted by the intrinsic record. The specification describes an embodiment in which the first and gate oxide layers are not separate structures, but different regions of the same structure. *See* Dkt. 228, Mot. at 16-17. Samsung seeks to read out the one embodiment that shows its devices fall within the scope of the terms.¹

Samsung's cited cases do not compel a different result. In *HTC Corp. v. Cellular Commun's Equip., LLC*, the specification described different components as performing the two functions of the claimed structures, while offering no example of a single structure performing both. 701 Fed. Appx. 978, 982 (Fed. Cir. 2017). The '055 Patent, by contrast, depicts first and gate oxide layers as being different parts of the same structure. In fact, *HTC* reaffirms that “the

¹ In a footnote, Samsung argues conclusorily that Figs. 3a, 3b, and 4a of the '055 Patent merely suggest the various layers “may have the same material.” Dkt. 300, Opp. at 10 n.9. But the specification does not discuss materials in the context of these particular figures and Samsung does not explain how this justifies its limiting the claim.

claims of any given patent must be evaluated in light of the specification to determine whether their scope requires more than one structure.” *Id.* at 983. Samsung’s reliance on *HTC* is misplaced.

Samsung’s other cited cases are equally inapposite. In each one, the intrinsic record confirmed that the scope of the claims required multiple structures, which is not the case here. *See Becton, Dickinson and Co. v. Tyco Healthcare Group, LP*, 616 F.3d 1249, 1254-55 (Fed. Cir. 2010) (spring and hinge separate structures where they were connected and specification did not suggest hinges could function as springs); *Gaus v. Conair Corp.*, 363 F.3d 1284, 1289 (Fed. Cir. 2004) (“Nothing in the descriptions of those two components suggests that their structures or functions overlap [T]he specification plainly describes the two components as separate.”); *Engel Indus., Inc. v. Lockformer Co.*, 96 F.3d 1398, 1404-1405 (Fed. Cir. 1999) (different structures where two elements were “bent” in different directions, and one element was “also provided”).

[REDACTED]. But it is black letter claim construction law that “a” means “one or more” in the context of the claims. *KCJ Corp v. Kinetic Concepts, Inc.*, 223 F.3d 1351, 1356 (Fed. Cir. 2000) (“[A]n indefinite article ‘a’ or ‘an’ . . . carries the meaning of ‘one or more’ in open-ended claims containing the transitional ‘comprising.’”). The asserted claims are open-ended claims “comprising,” among other things, a first and gate oxide layers. ’055 Patent, claim 1. Thus, the “one or more” rule applies.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

C. As To First Oxide Layer Thickness Greater Or Equal To Gate Oxide.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] But this is again a new limiting claim construction, and there is no such requirement or language in the claims.

[REDACTED]

[REDACTED]. But Samsung cannot escape infringement by pointing to different elements where, as here, the device otherwise incorporates all elements of the claim. The Federal Circuit has “never required that a claim read on the entirety of an accused device in order to infringe. If a claim reads merely on a part of an accused device, that is enough for infringement.” *SunTiger, Inc. v. Scientific Research Funding Group*, 189 F.3d 1327, 1336 (Fed. Cir. 1999). Here, the claim element is met and it is irrelevant if other portions of the fin are different.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Samsung's theory also does not hold up in real life. For example, [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] *See, e.g., I-Flow LLC v. Progressive Medical, Inc.*, 2013 WL 12134268, at *6 (C.D. Cal. Dec. 10, 2013) (partial summary judgment where limitation was clearly visible from photos of accused products); compare *Vita-Mix Corp. v. Blendtec, Inc.*, 2017 WL 3425286, at *5 (N.D. Oh. Aug. 9, 2017) (no infringement where absence of element was clearly visible).

Further, Samsung has not shown that the scope of the claims only covers thicknesses determinable through purely theoretical measurements. Actual measurements are sufficient to satisfy the claims. *See Presidio Components, Inc. v. Am. Tech. Ceramics Corp.*, 875 F.3d 1369, 1379-80 (Fed. Cir. 2017). [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

III. THE CLAIMS DO NOT REQUIRE FINS BE ENTIRELY OR SOLELY “SINGLE CRYSTALLINE SILICON.”

² Samsung also rehashes its old claim construction position that the oxide layers must be formed by oxidation. But the Court already rejected this contention and ruled that an oxidation and oxide layer are used interchangeably and may be “deposited.” See Dkt. 228, Mot. at 25-26. Samsung cannot avoid infringement by re-urging these rejected arguments.

[REDACTED]

[REDACTED]. *See SunTiger*, 189 F.3d at 1336. [REDACTED]

[REDACTED]

[REDACTED]. Not only is this a new, never-before-raised “inherency” theory, Samsung fails to explain why expressly recited elements would be inherent and cites no evidence in support. *See, e.g., Waters Techs. Corp. v. Aurora SFC Sys. Inc.*, 2017 WL 3598648, at *3 (D. Del. Aug. 21, 2017) (“That the limitation was expressly provided in claim 4 strongly suggests that this was not inherent . . .”). The argument is also legally incorrect because it depends on importing limitations from claims 11 and 12 into claim 1, which is improper as a matter of claim construction. Dkt. 228, Mot. at 10-11.³

IV. THE CLAIMS DO NOT REQUIRE “TWO TOP CORNERS”

Samsung urges that claim 15’s “two top corners” is an “inherent” feature of claim 1’s Fin active region. Not only did Samsung fail to assert, much less even mention, this contention during claim construction, Samsung’s “inherency” argument is legally incorrect. Dependent claims cannot limit the scope of independent claims from which they depend. *See* Dkt. 228, Mot. at 10, 13 (citing cases). Moreover, doing so would run afoul of the claim differentiation rule. “[T]he presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim.” *Liebel-Flarsheim Co v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004) (emphasis added). That presumption is strongest where, as here, the element sought to be added into the independent claim already appears in the dependent claim. *See id.*

³ Samsung also argues that “said doping junction depth” is an “inherent” feature of “source/drain regions.” Dkt. 300, Mot. at 25. This other inherency argument fails for the same reasons.

V. CONCLUSION

Based on the foregoing, KAIST IP US respectfully requests that its motion be granted.

Date: April 16, 2018

Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing document was filed electronically in compliance with Local Rule CV-5(a). As such, this notice was served on all counsel who have consented to electronic service, Local Rule CV-5(a)(3)(A), on April 16, 2018.

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CERTIFICATE OF AUTHORIZATION TO FILE UNDER SEAL

The undersigned hereby certifies that, under L.R. CV-5(a)(7)(B), the foregoing document is filed under seal pursuant to the Court's Protective Order entered in this matter (Dkt. No. 54).

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